


$a + 3ab$ $-8mn$

Unit 1

POLYNOMIALS

$x^2 + 2x + 5$ $2 - 3x$



L1 (7.1) Like Terms and Unlike Terms

Polynomial: An expression that can have constants (like 4), variables (like x or y) and exponents (like the 2 in y^2), that can be combined using addition, subtraction, multiplication and division.

Algebra tiles are integer tiles and variable tiles.

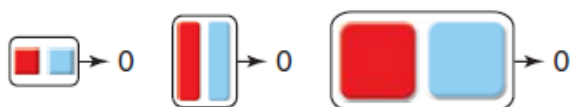
Positive tiles



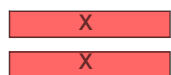
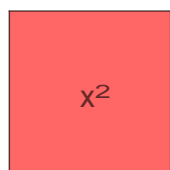
Negative tiles



Any two opposite tiles add to 0. They form a **zero pair**.



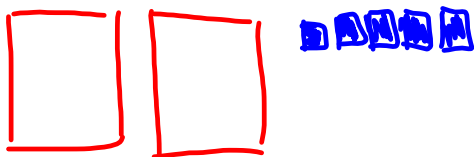
Ex.1: What is the expression modeled by the algebra tiles?



Answer: $x^2 + 2x - 6$

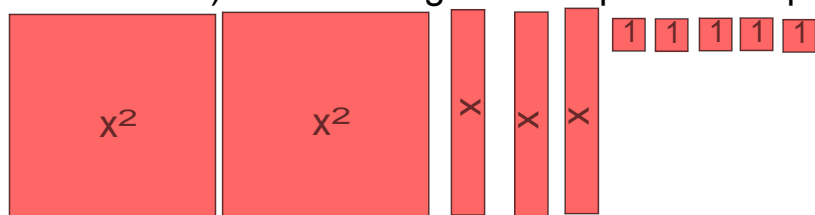
Ex.2: Draw algebra tiles to model the expression $2x^2 - 5$.

*In our notes,
clear tiles will represent red and
shaded tiles will represent blue.*



To organize a collection of algebra tiles, we group the like terms.

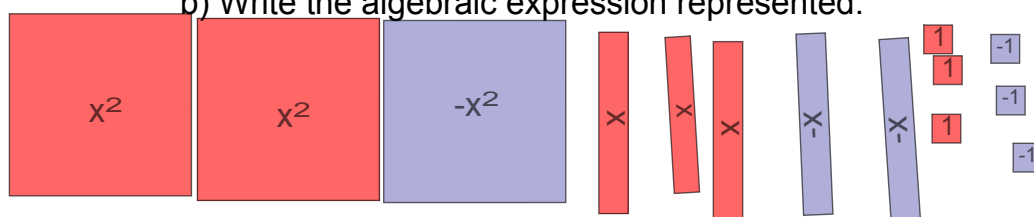
Ex.3: a) Draw the algebra tiles in an organized way.
b) Write the algebraic expression represented.



$$= 2x^2 + 3x + 5$$

When a collection of algebra tiles contains red and blue tiles, we group the like terms and remove zero pairs.

- Ex.4: a) Simplify & draw the algebra tiles in an organized way.
b) Write the algebraic expression represented.



$$= x^2 + x$$

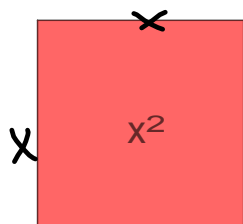
- Ex.5: Identify all like terms: $2x^2$, -5 , $4x$, 3 , $-x^2$, 1 , x , $7x$, 9 .

$$2x^2 - x^2$$

$$4x + x + 7x$$

$$-5 + 3 + 1 + 9$$

- Ex.6: What is the area of each tile below?



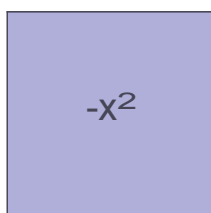
Area = x^2



Area = x

$$x^2 + 12x + 8$$

Area = 1



Area = $-x^2$



Area = $-x$



Area = -1

Assigned Work:

p.255-256 # 2cde, 4, 5, 6ab, 7, 8, 10